



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,899	03/10/2004	Frank J. Prineppi	ORALWAVE (144*407)	5054
7590	07/09/2004		EXAMINER	
Connolly Bove Lodge & Hutz LLP P.O. Box 2207 Wilmington, DE 19899-2207			BALSIS, SHAY L	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/797,899	PRINEPPI, FRANK J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shay L Balsis	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/17/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6, lines 6-7 states, “extending toward the other of said first brush head and said second brush head, said other of said brush head and said second brush head having a guide slot,”. Examiner believes that that applicant mean to say –said other of said first brush head and said second brush head having a guide slot-

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-13, 15-17 and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Belaschk et al. (USPN 2140307).

Belaschk teaches an electric toothbrush comprising a first brush head (56) and a second brush head (60) mounted in a brush head holder. Each brush head is disc shaped with bristles (57, 61) extending outwardly from each brush head. An electric motor (11) is mounted in a hollow housing (10) and the brush head holder is detachable from the housing. The first brush head is located between the electric motor and the second brush head. There are two sets of pivot structures (55, 59) on the brush head holder for mounting a brush to each pivot structure. There is a drive shaft (51) connecting the motor and first brush head. There is a drive pin (teeth of gearing) that extends between the first and second brush heads. The drive pin is fixed to the first brush head and fits in a slot (area between teeth on gears) on the second brush head. The motor is then actuated and the drive shaft rotates causing the first brush head to rotate and thereby causes movement of the drive pin, which is used to rotate the second brush head. The electric toothbrush may further comprise a third brush head with a guide slot (area between teeth of gears). The slot on the third brush head receives a drive pin (teeth of gearing) from the second brush head and causes the third brush head to rotate when the first and second brush heads rotate. The first brush head and the second brush head each rotate in a plane. The plane of the second brush head is at an angle of 180 degrees with respect to the plane of the first brush head.

Claims 1-8, 10-14, 16-17, 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Mei (USPN 5617603).

Mei teaches an electric toothbrush comprising a first brush head (3) and a second brush head (4) mounted in a brush head holder. An electric motor (not shown) is mounted in a hollow housing (not shown) and the brush head holder is detachable from the housing. The first brush head is located between the electric motor and the second brush head. There are two sets of

Art Unit: 1744

pivot structures (34, 43) on the brush head holder for mounting a brush to each pivot structure. There is a drive shaft (6) connecting the motor and first brush head. There is a drive pin (5) that extends between the first and second brush heads. The drive pin is fixed or secured to the first brush head and fits in a slot (42) on the second brush head. The drive pin is mounted in a cantilevered manner to the first brush head. The end of the drive pin that fits in the second brush head is in the form of a ball (51). The motor is then actuated and the drive shaft rotates causing the first brush head to rotate and thereby causes movement of the drive pin, which is used to rotate the second brush head. The first brush head and the second brush head each rotate in a plane. The plane of the second brush head is at an angle of 180 degrees with respect to the plane of the first brush head.

Claims 1-3, 5-8, 10-13, 17-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Gruber et al. (USPN 6463615).

Gruber teaches an electric toothbrush comprising a first brush head (20) and a second brush head (26) mounted in a brush head holder. An electric motor (not shown) is mounted in a hollow housing (not shown) and the brush head holder is detachable from the housing. The first brush head is located between the electric motor and the second brush head. There are two sets of pivot structures (32, 24) on the brush head holder for mounting a brush to each pivot structure. There is a drive shaft (6) connecting the motor and first brush head. There is a drive pin (25) that extends between the first and second brush heads. The drive pin is fixed to the first brush head and fits in a slot (35, 36) on the second brush head. The motor is then actuated and the drive shaft rotates causing the first brush head to rotate and thereby causes movement of the drive pin, which is used to rotate the second brush head. The first brush head and the second brush head

Art Unit: 1744

each rotate in a plane. The plane of the second brush head is at an angle of 180 degrees with respect to the plane of the first brush head, when not in use. Once it is turned on the second brush head vibrates up and down which creates an angle between the first and second brush head wherein the second brush head would be inclined toward the first brush head.

Claims 6-8, 13, 15, 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hazeu et al. (USPN 5836030).

Hazeu teaches an electric toothbrush comprising a first brush head (14) and a second brush head (16) mounted in a brush head holder. An electric motor (28) is mounted in a hollow housing (2) and the brush head holder is detachable from the housing. The first brush head is located between the electric motor and the second brush head. There are two sets of pivot structures (70, 72) on the brush head holder for mounting a brush to each pivot structure. There is a drive shaft (33) connecting the motor and first brush head. There is a drive pin (68) that extends between the first and second brush heads. The drive pin is fixed to the second brush head and fits in a slot (64, 66) on the first brush head. The motor is then actuated and the drive shaft rotates causing the first brush head to rotate and thereby causes movement of the drive pin, which is used to rotate the second brush head. The first brush head and the second brush head each rotate in a plane. The plane of the second brush head is at an angle of 1-40 degrees with respect to the plane of the first brush head (col. 12, lines 5-34).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mei or Gruber et al or Hazeu et al.

Mei or Gruber or Hazeu disclose all the essential elements of the claimed invention however, the reference fails to teach two disc shaped brush heads. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use disc shaped brush heads because Applicant has not disclosed that disc shaped brush heads provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape of the brush heads as taught by Mei or Gruber or Hazeu or the claimed disc shape because all the shapes perform the same function of cleaning a users teeth equally well]. Therefore, it would have been obvious to one of ordinary skill in the art to modify Mei or Gruber or Hazeu to obtain the invention as specified in claim 9.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Belaschk et al. in view of Hohlbein (USPN 6314606) or Mei in view of Hohlbein (USPN 6314606).

Belaschk and Mei teach all the essential elements of the claimed invention however the references fail to teach that the second brush head is angled inward toward the first brush head relative to the plane of rotation. Hohlbein teaches a toothbrush comprising a first (14) and

Art Unit: 1744

second brush head (16), wherein the second brush head is angled inward toward the first brush head as shown in figure 6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to angle Belaschk's and Mei's second brush head inward since "a curved/angles bristle surface configuration offers improved access to hard-to-reach areas such as the lingual surfaces of the front teeth, and behind the molars, placing more bristles in contact with the outer surfaces of the front teeth" ('606, col. 1, lines 24-28).

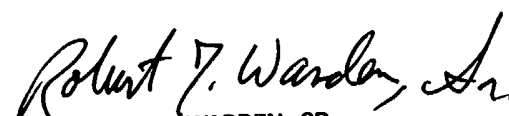
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Slb  
7/2/04

  
ROBERT J. WARDEN, SR.  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700